RiT's Dashboard

User Manual

Version 2.2

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Introduction to RiT's Dashboard

RiT's Dashboard provides a centralized depot for defining real-time alerts and centrally monitoring events across a company's physical network infrastructure. RiT's Dashboard enables network personnel (Infrastructure, IT, Operation Managers) to keep the network running smoothly by tracking key performance data and providing constant notification of network infrastructure changes.

RiT's Dashboard consolidates on-site security, provisioning, and troubleshooting events by providing customized definition, tracking and automated notification for local-based control of all local and remote connections, and physical network infrastructure components.

The following table lists the additions and modifications since the last release of RiT's Dashboard.

New Features	Description
Support for CenterMind*	Dashboard gauges display information that is taken from the CenterMind database.
Blade Servers	Presents the number of available and occupied slots in the Blade Server
Cabinet Space	Same as for rack space.
Power Consumption * Only for users with CenterMind installed	Information for power utilization for racks and cabinets is taken from the CenterMind database. Therefore, this function is only applicable for users who have RiT's CenterMind datacenter management application.

***CenterMind Note!**

CenterMind is RiT's client server datacenter management solution that is used for day to day running of large and small size datacenters.

Performance and Data Availability

RiT's Dashboard provides role-oriented, policy-based visibility into the network infrastructure status. When specific items, such as: asset utilization information, broken links, and unauthorized patches require your attention, Dashboard lets you drill-down immediately into the relevant details before you act.

RiT's Dashboard displays personalized network and infrastructure status in real-time, automatically updating the data as changes are made.

Using the alert policies and filtering utility, users can manage by objectives, drilling down as needed, and react immediately as indicators move from green to red.

How It Works

RiT's Dashboard gathers information and events from the PatchView for the Enterprise (PV4E) database, analyzes it and graphically presents this information for decision-makers. It is event-driven and continuously correlates information from the PV4E system.

RiT's Dashboard is a web-based application offering a standard Microsoft Office 2003 "look and feel". It gives users maximum flexibility in deciding what to see, where to see it, and what it will look like.

Personalization

With RiT's Dashboard, you have a personalized dashboard containing key performance metrics that are vital to your job responsibilities. There is no need for an expert to personalize your dashboard or update the metrics. At any time, you can proactively modify or create new metrics to be monitored within your dashboard, with no additional assistance. RiT's Dashboard updates or changes take minutes, not weeks or months.

Additionally, you can define alert policies based on event triggers and thresholds, device location, type and IP/MAC address. For instance, you can decide that disconnection of a PC which resides in the basement will create a low severity provisioning alert, whereas, the disconnection of a PC located in the data center creates a high severity provision alert. You can further decide if this alert is accompanied by a pop-up message and/or an audio alert.

Minimum Requirements

Deployment Server

		MINIMUM REQUIREMENT
Hardware	Pentium IV	Running at 2.4GHz or greater
	RAM	512MB or greater (1GB recommended)
	Hard Disk space	2 GB
Software	Operating System	Windows 2003 Server, Windows 2000 Server Family containing SP4
	Microsoft Internet Explorer	Version 6.0 SP1
	DB	MS SQL 2000 with SP3A. (MS SQL 2000

		MINIMUM REQUIREMENT
		Standard/Enterprise Edition recommended for Windows 2003/2000 Server Family)
	IIS 5 or 6	Prerequisites: Common files, FTP Server, Internet Information, Services Snap-In, SMTP Services and World Wide Web Server
	MSMQ	Version 2.0 or 3.0

Client Server

		MINIMUM REQUIREMENT
Hardware	Pentium III	700 MHZ, 512 MB
Software	Operating System	Win 2000. 2003, XP With .NET framework 1.1.

Working with RiT's Dashboard

RiT's Dashboard is a modular component that is integrated and built on top of RiT's PatchView web-based management.

This chapter describes how to use RiT's Dashboard display, access information and perform actions.

Using RiT's Dashboard Interface

RiT's Dashboard presents a standard graphical user interface (GUI).

Disabled Actions

Actions may appear dimmed on menus, icons and buttons.

These are actions are not relevant for the current state of the system or the display, or for the selected object.

Tool Tips and Screen Tips

Tool tips and screen tips appear when the mouse pointer is placed over an object. Tips appear and describe the purpose of an object. Screen tips may also display more details of the selected data.

RiT's Dashboard Display

RiT's Dashboard display consists of a module navigation pane on the left and a module display on the right, included in the following screen capture are the new functionalities:

Figure 1 RiT's Dashboard Display

A list of modules on the bottom left-hand side of the main view comprises the key sections of the Dashboard:

- **Dashboard:** Displays active gauges
- **Alerts:** Displays active PatchView alerts in real-time
- **Policy:** Defines the creation of an alert based on a set of events and thresholds; device location, type and IP/MAC address
- **Reports:** Displays historical reports of PatchView alerts
- **Device Search:** Allows you to search and get information about the organization's devices

- **Work Order Calendar:** Allows you to view the tasks assigned to different technicians on a standard MS Outlook calendar.

The *Summary* tab shows a visual display of the total number of active alerts, sorted by alert type (e.g. On-site Security, Troubleshooting, and Provisioning) and severity (e.g. high, medium, and low).

This area of the display is context sensitive and displays information according to the module that is selected in the lower part of the module navigation. The summary data is refreshed every minute.

The right-hand side of the main view displays real-time alert logs related to the module that is selected.

RiT's Dashboard Module Options

You can navigate to several modules contained in RiT's Dashboard for real-time analysis of under- and over-utilized network resources, such as: switches, routers and panels. Personalize your view by defining graphical reports, graphs and gauges and setting threshold breaches. Navigate between the different modules by clicking the buttons located on the bottom left side of the module navigation.

Dashboard

The Dashboard is a single view which collects and presents important high-level information in a simple manner. It consists of nine blocks that can be easily customized to your personal preference. Via the block settings option, you can choose its properties, such as: the block visibility, block title, information type, filtering, value representation, and critical values.

Also, from the main dashboard screen, you can change the dashboard view by resizing and changing the width of a block by dragging its boundaries. To change the width, move the pointer along the right side of the block until it changes to a double-headed arrow, then drag the boundary until the desired width.

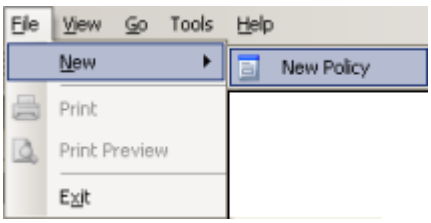
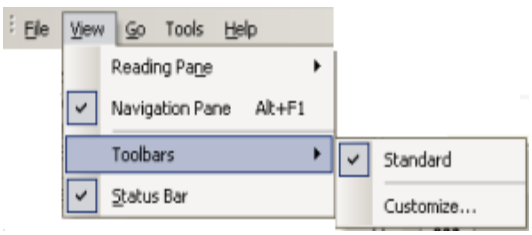
Viewing the Dashboard

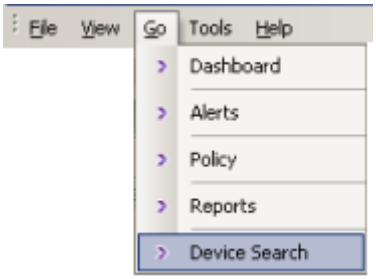
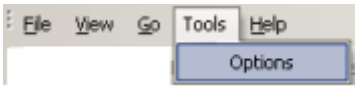
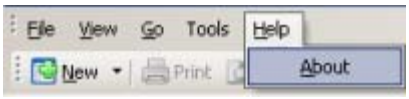
To view the dashboard, click the *Dashboard* module button. The main view of the Dashboard is displayed:

Figure 2 Dashboard module view

Toolbar

The following table explains the function of the main toolbar:

Menu		Function
File		New policy: A user-defined alert name Print: Not currently active Print Preview: Not currently active Exit: Click to exit application
View		Reading Pane: Not currently active Navigation Pane: Remove left panel Toolbars: You can select either the standard or your own customized toolbar Status Bar: View/hide

Menu	Function
Go 	You can go to the key sections of the dashboard using this menu.
Tools 	You can use the toolbar to access the options menu or you can stand on the gauge and right-click.
Help 	About displays details of current Dashboard version.

Shortcut Menus

Instead of using the menu bar to activate a command, you can click on an item in the shortcut menu to activate. The shortcut menu bar provides quick and easy access to the most frequently used functions.

Note:

For each key section, Dashboard, Alerts, Policy etc, the shortcut menu is different.

The Location Filter

Throughout the application you will find the location filter. This filter allows you to define a location, or several locations, relevant to the specific module. Principally, it looks like the PV4E location tree, except that it is possible to select different locations.

If the box next to *Include sub-locations* is checked, all the sub-locations of the selected locations will be included. The following figure shows how to include all the locations in the system.

Click **Clear All** to clear all the selected locations.

There is also an indication showing the total number of locations that are selected:

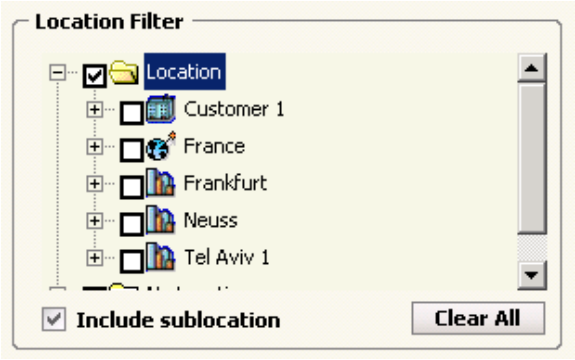


Figure 3 *Location Filter*

Customizing the Dashboard

To change the Dashboard's block settings:

1. Click **Edit** on the toolbar. The *Dashboard Block Settings* dialog is displayed:

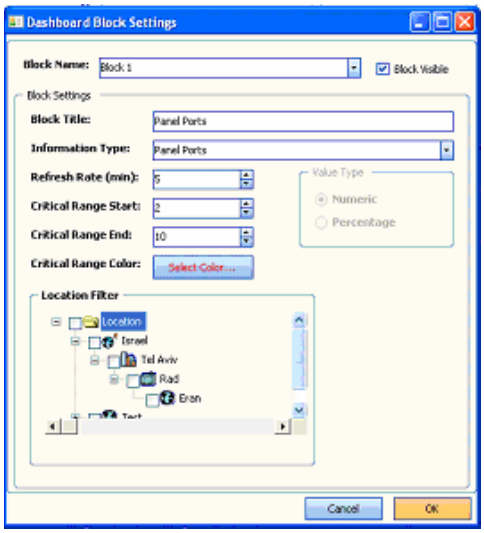


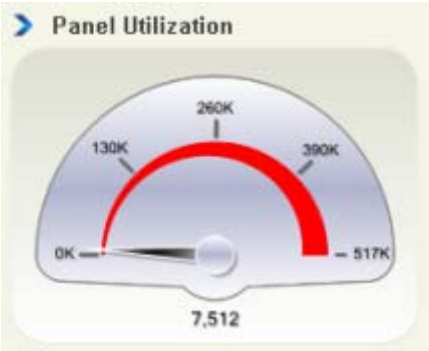
Figure 4 Block Settings dialog

2. From the *Block Name* drop-down box, select the block number you want to customize. The blocks are numbered 1 to 9 horizontally by row: blocks 1 through 3 in the top row, blocks 4 through 6 in the middle row, and block 7 through 9 in the bottom row.
3. Check the *Block Visible* checkbox to display the respective block on the dashboard, or de-select the *Block Visible* checkbox to hide the block. When a block is hidden, the system will automatically resize the visible blocks in the row.
4. In the *Block Title* field, type the title you want to appear over the block on the dashboard.
5. From the *Information Type* drop-down box, select the information type:

Information Type	***Description***
Outlet Ports utilization	A utilized outlet port is an outlet port to which a device is connected to its front.
Panel ports utilization	A utilized panel port is a panel port to which a device port (panel etc) is connected to its front.
Switch Ports Connection	Switch ports connection. A connected switch port is a switch port to which an outlet is connected.
Average of alerts per day	Average of alerts per day, in the last weeks. Grouped by severity.
Work orders	Present the number of WO's and tasks grouped by their statuses.
Assets	Inventory device list.
Rack space utilization	Occupied rack spaces (counted by U's).
Cabinet space utilization	New function released in version 2.2. Same functionality as *Rack space utilization*, see above.
Panel Reserved Ports	Takes the number of panel port utilization, and adds the number of ports which are reserved (including ports which are reserved by provisioning).
Outlet ports without device	Number of outlet ports to which no device is connected to the port's front but have a link to a switch.
Outlet ports with full link	An outlet port to which there is a link to a switch port to its back and a device to the front.
Non Active Switch Ports	Non active switch port is a port to which no device was connected in the past.
Free Panel Ports	Panel ports to which nothing is connected to its front.

Information Type	***Description***
New Stations/Servers/Printers Per Month	The number of devices that were added in each of the last 3 months. The information will be based on the actual new devices that were detected.
Blade Servers	Presents the number of available and occupied slots in the Blade Server
Power Utilization	Presents the power utilization of Racks and Cabinets
Specific Switch Ports connection	Presents the utilization of specific switches.
Customized Gauge	This gauge is fed by external systems using the dashboard SDK functions.

6. Select values for:
   - *Refresh Rate (min)* – the rate per minute the display is refreshed
   - *Critical Range Start* – the starting point for an early warning of emerging problems with specific links, devices or VLANs
   - *Critical Range End* – the end point for warning of emerging problems with specific links, devices or VLANs
   - *Critical Range Color* – you can choose the background color of the threshold breaches on a gauge or graph (e.g. the red area of the gauge shows the need for immediate reaction)



7. Value Type: Check box to display information in either Numeric or Percentage.
8. Via the *Location Filter*, you can expand the *Location* node to display additional, more precise alert locations to pinpoint the root cause of a

failure. For instance, you can decide that a disconnection of a PC which resides in someone's office will create a low severity provisioning alert. You can select the country, city, building, floor and room:

9. Click **OK** to save the changes. The block is displayed on the dashboard.

***Note**:*

You can create blocks for the same information type, but with different parameters:

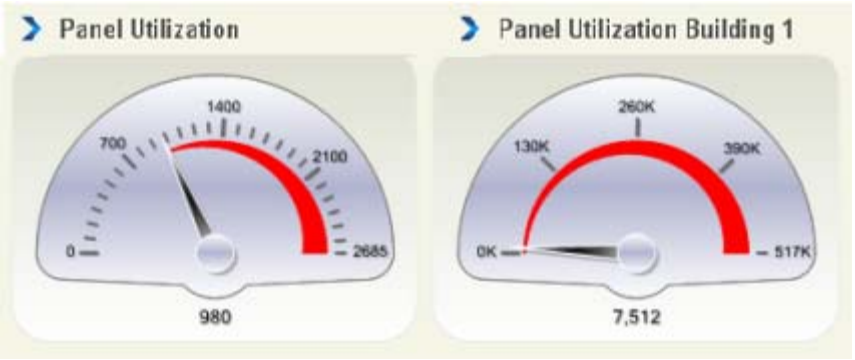


Figure 5 Block display view

In the previous example, block 1 shows the Panel Ports utilization of building 1, while block 2 shows the same information type, with an X location filter.

Drill-down View

Drill-down on a block to see the block alert details that affect the information displayed on the gauges and graphs. You can also drill-down to a specific location using the Location Filter. The Location Filter gives you more location-based control of all local and remote connections and physical network infrastructure components.

To see the details of a block, right-click on the respective block and select *Show details*. The details of the block are displayed:

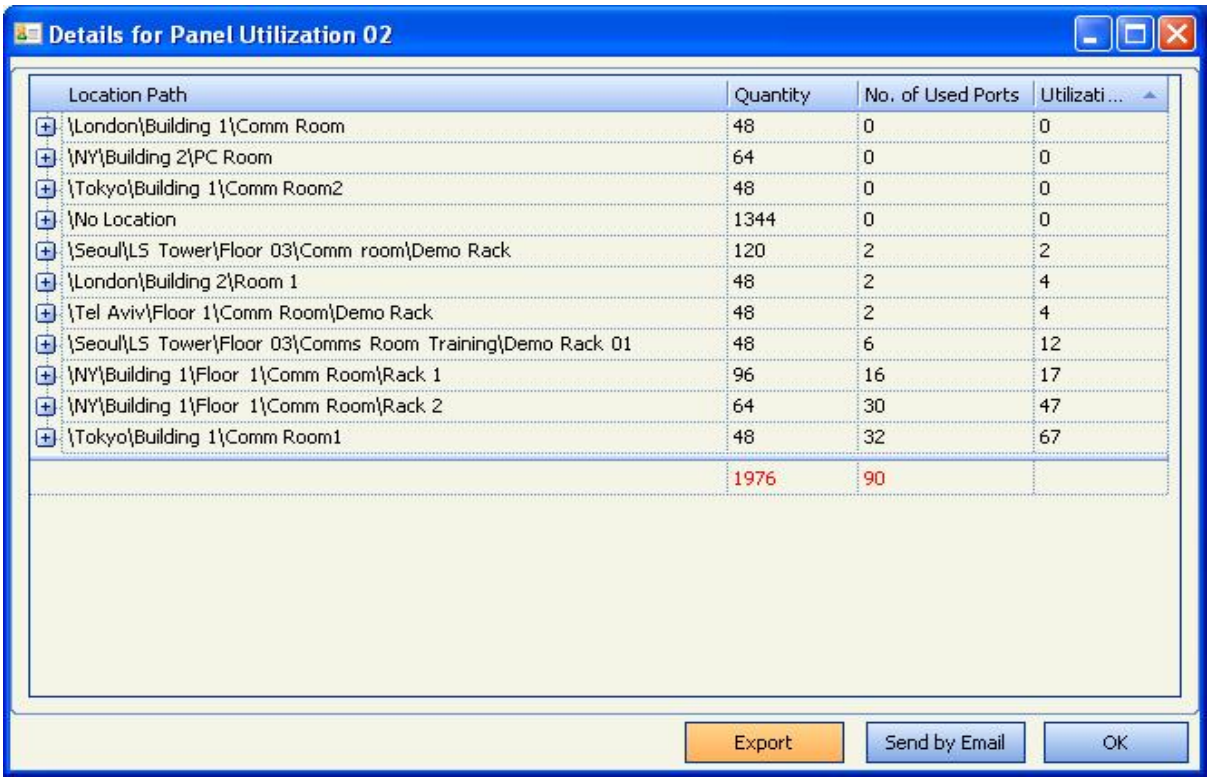

Details for Panel Utilization 02
Location Path
Quantity
No. of Used Ports
Utilizati...
\London\Building 1\Comm Room 48 0 0
\NY\Building 2\PC Room 64 0 0
\Tokyo\Building 1\Comm Room2 48 0 0
\No Location 1344 0 0
\Seoul\LS Tower\Floor 03\Comm room\Demo Rack 120 2 2
\London\Building 2\Room 1 48 2 4
\Tel Aviv\Floor 1\Comm Room\Demo Rack 48 2 4
\Seoul\LS Tower\Floor 03\Comms Room Training\Demo Rack 01 48 6 12
\NY\Building 1\Floor 1\Comm Room\Rack 1 96 16 17
\NY\Building 1\Floor 1\Comm Room\Rack 2 64 30 47
\Tokyo\Building 1\Comm Room1 48 32 67
1976 90
Export
Send by Email
OK

Figure 6 *Location Details of Panel Utilization*

In the above example, you can see the location path of the panel ports being observed, the total quantity of ports in the given location, and the number of ports in use at the given location.

As in any Dashboard table, it is possible to sort the table by clicking on the column header, and to change the column order by dragging and dropping the column header to a different location. You can also get additional details by clicking on the + (plus sign).

Click **Send by Email** to send the selected information by email.

Click **Export** to export the table to a CSV file.

Refresh Gauges

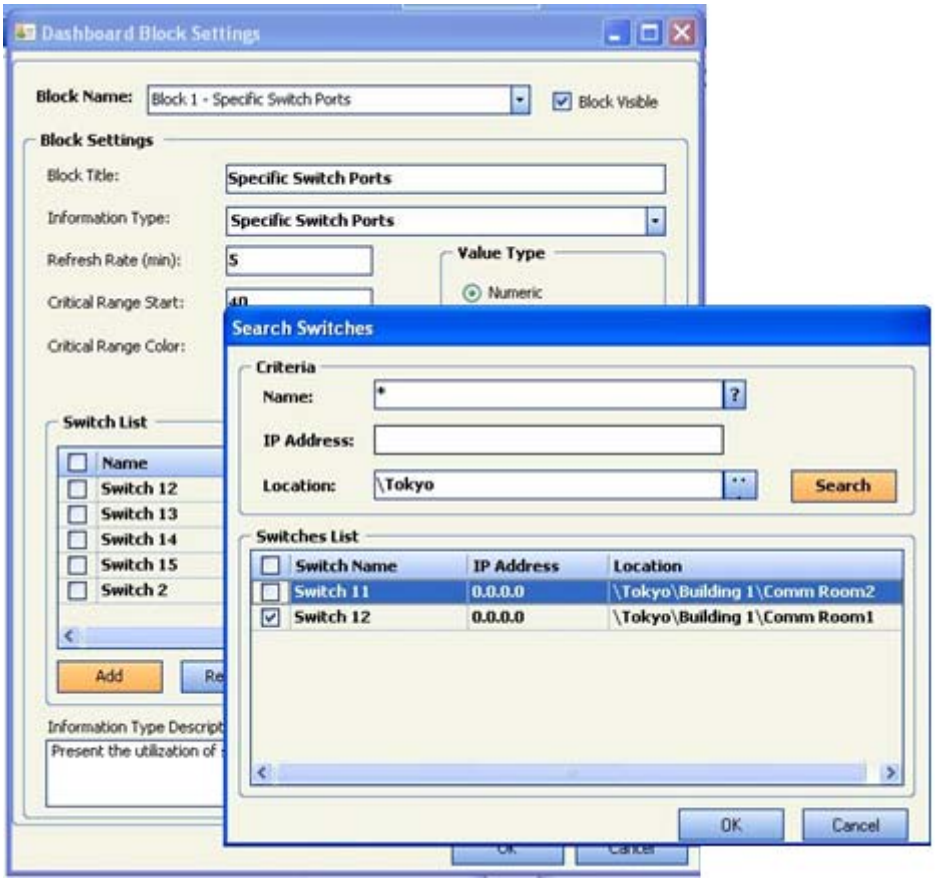
Version 2.2 allows you to refresh each individual gauge, or you can refresh the entire screen.

To refresh a single gauge, stand on the gauge, right-click the mouse and select **Refresh.**

To refresh all gauges displayed on the screen, click the *Refresh* button on the main toolbar

Special Gauges:

Specific Switch Ports connection – This information block allows you to specify switches rather than locations. You can look for switches according to different parameters, and pick the switches which are relevant. Note that the location selection mechanism is replaced when this information type is selected.



Customizable Gauges:

Dashboard customizable gauges let you set the gauge data from an external application or system using the dashboard SDK functions. The Dashboard main screen is comprised of a set of gauges. You can set the information source which will push the data to any of the specific gauges. Most of the gauges get the data from the PV4E database. The customizable gauges get the information from external sources.

See the Appendix for a detailed description of the Dashboard SDK functions.

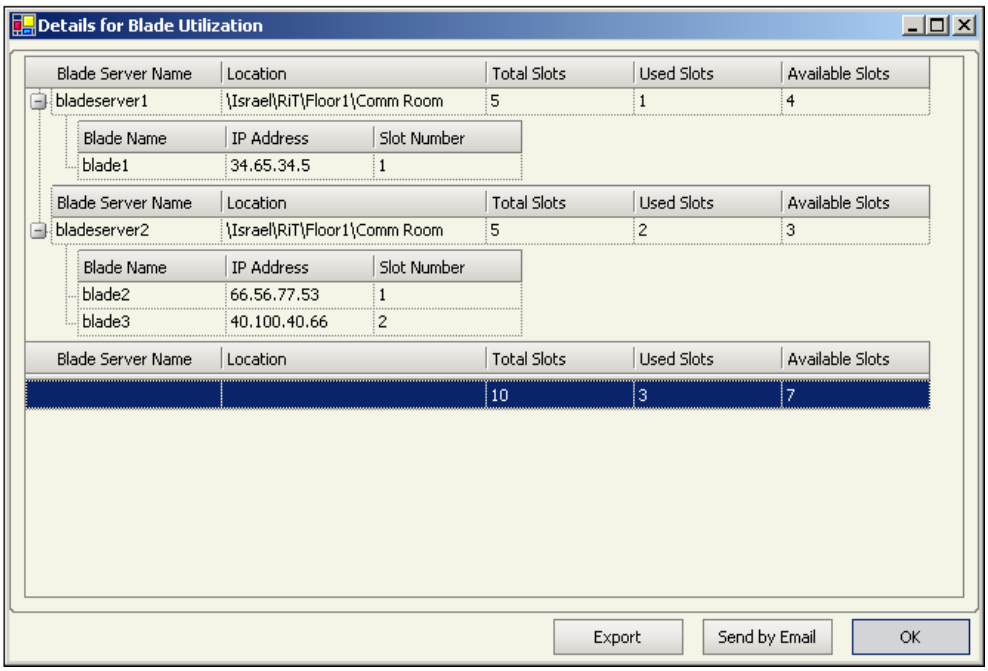
Blade Servers:

Blade Server gauges have been added to version Dashboard version 2.2 and are used in the same way as any other gauge.

You can view information such as location, total number of bays (total blade capacity of the chassis), utilization, for example the number of bays used and also the number of available bays.

To drill-down and view all the details connected to a Blade Server, right-click the mouse and select **Show Details:**

The *Blade Utilization Screen* opens and displays all pertinent information for each Blade Server, such as: Blade name, location, total amount of slots, used slots and available:

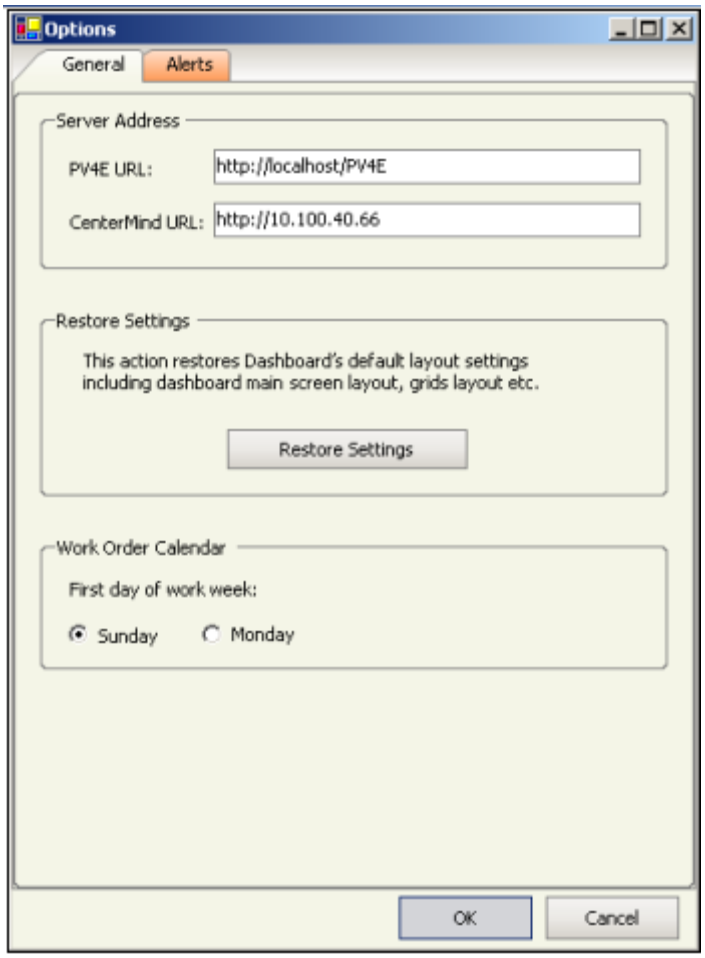

Details for Blade Utilization
Blade Server Name | Location | Total Slots | Used Slots | Available Slots
bladeserver1 | \Israel\RiT\Floor1\Comm Room | 5 | 1 | 4
Blade Name | IP Address | Slot Number
blade1 | 34.65.34.5 | 1
Blade Server Name | Location | Total Slots | Used Slots | Available Slots
bladeserver2 | \Israel\RiT\Floor1\Comm Room | 5 | 2 | 3
Blade Name | IP Address | Slot Number
blade2 | 66.56.77.53 | 1
blade3 | 40.100.40.66 | 2
Blade Server Name | Location | Total Slots | Used Slots | Available Slots
10 | 3 | 7
Export
Send by Email
OK

Settings

To Set the URL Server

To set the URL to either the PV4E or CenterMind server, do the following:

1. From the Tools menu, select *Tools* > *Options.* The *Options* dialog is displayed:



2. Click the *General* tab.
3. Enter the following information in the *Server address* fields:

   PV4E URL: Enter the URL address to the PV4E server.

   CenterMind URL: Enter the URL address to the CenterMind server

4. Click **OK**.

Policy

Alert policies are event-driven and continuously correlate information from the PV4E system. The Alert policies are used to create alerts based on the PV4E events with filters for: device location, device type and IP/MAC address range. The alert policies are categorized by type (i.e. security,

troubleshooting, provisioning). This policy-based visibility into the network infrastructure allows you to immediately retrieve relevant details before you act.

Policies are modular and new policies can be added as needed.

Click the *Policy* module in the navigation pane. A list of alert policies is displayed on the left, while a preview detail of a selected entry is displayed on the right:

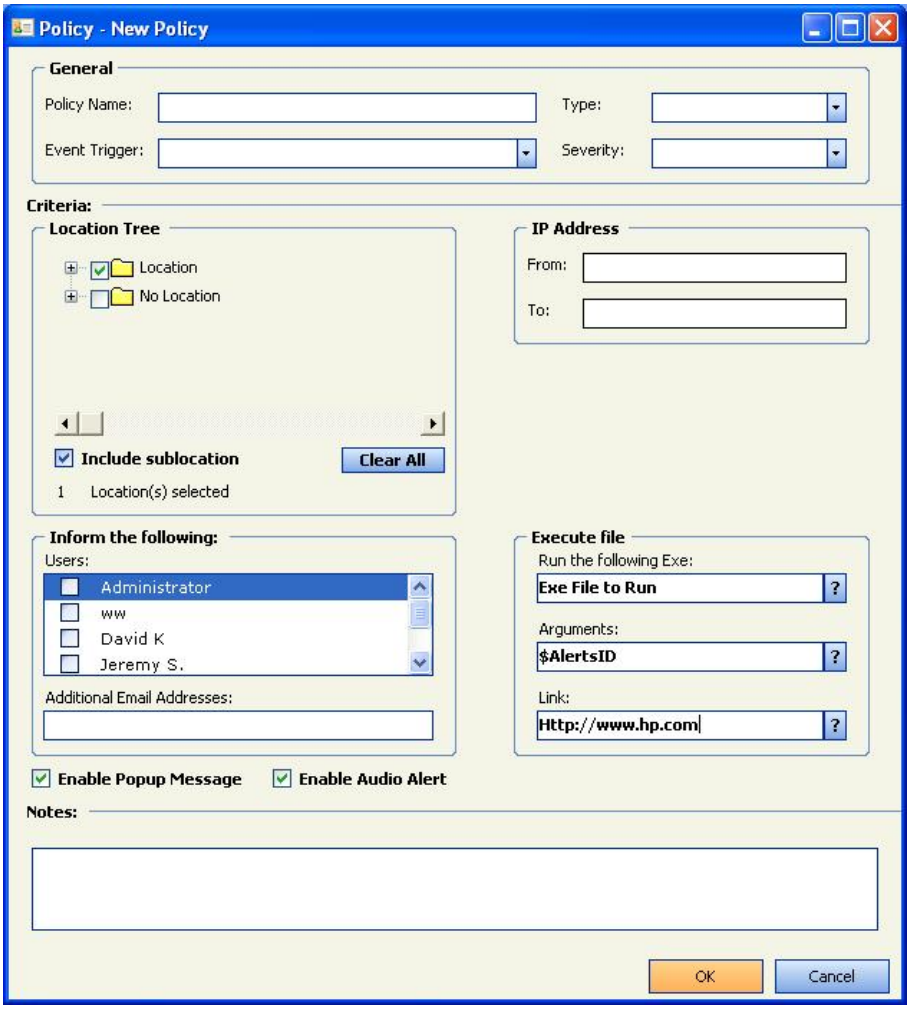


Figure 7 Policy details view

Policy Name:	A user-defined alert name
Type:	The alert type can be defined as security, troubleshooting, or provisioning
Location Tree:	The location path details of the event location by region/city/building/room
IP Address:	The IP address connection range, when relevant

	Note: *The IP Address is not relevant for all of the event triggers*
Event Trigger:	The crucial part of the alert policy that initiates an alert. (The event trigger identifies and alerts to under- and over-utilized network resources such as switches, routers, and panels.)
Severity:	The alert severity can be defined as high, medium, or low.
Device Type:	The type of hardware device to which the alert refers (only relevant for troubleshooting policies).
Notes:	An explanation of the alert.
Inform the following:	You can specify the users to whom you want an email notification sent when the specific alert is fired. **Note:** This list is comprised of PV4E users whose email addresses were specified in the application.
Run Exe:	You can specify which program to use when an alert is fired. **Note**: The exe file should reside on the server. The program will be called with the specified parameters.
Notes:	An explanation of the alert.
Arguments:	Allows you to send an argument to an .exe file. For a unique alert identifier, you can user $alertID. As each alert has a unique ID, the .exe file uses this parameter to create, for example, a link to a picture which is associated with the specific alert; or a connection between the alert ID and an external ticketing application.
Link:	Allows you to specify a link which will appear on the alert page. Use $alertID to create a unique link for an alert.
Notes:	An explanation of the alert.

Creating a New Policy

1. Select *New>New Policy* from the toolbar. The *New Policy* dialog is displayed:

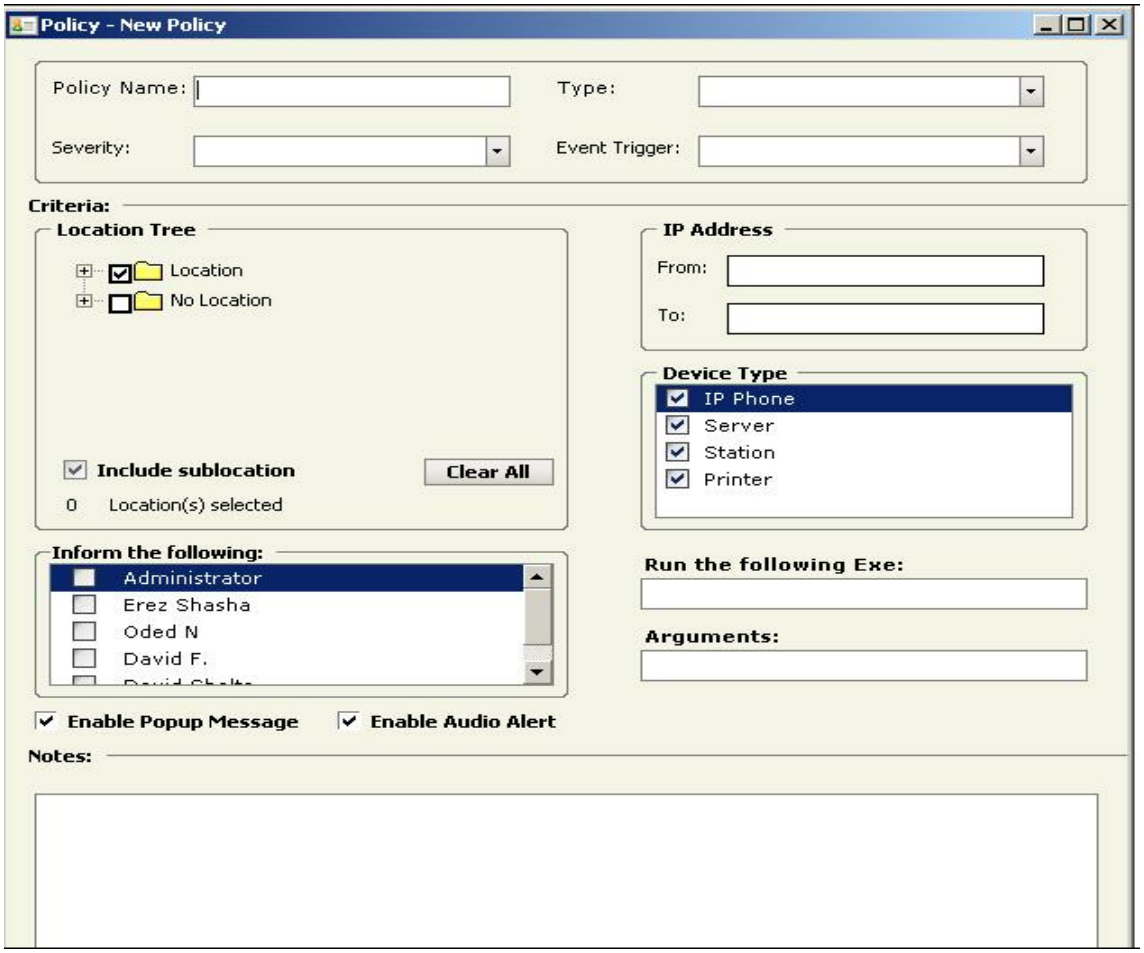


Figure 8 New Policy dialog

2. Enter the name of the policy in the *Policy Name* field.
3. Select the Alert type from the *Type* drop-down list.
4. Choose the location from the *Location Tree* by expanding the Location node.
5. Enter the *IP Address* range, if relevant, for the respective event trigger.
6. Select the event trigger from the *Event Trigger* drop-down list:
7. Select the alert severity from the *Severity* drop-down list.

8. Click **OK**. The new alert policy is listed under the Policy list.

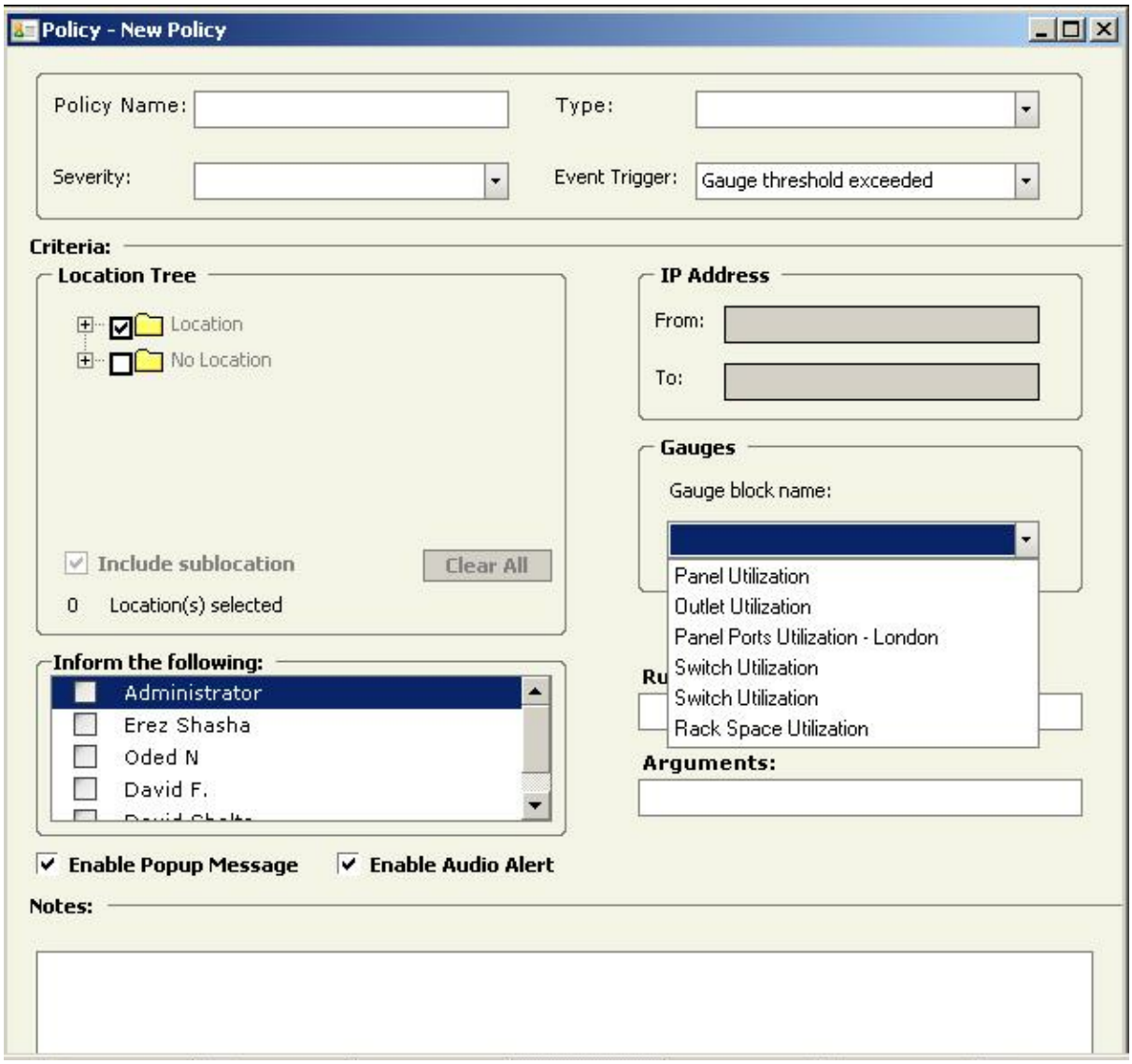


Figure 9 *Gauge threshold exceeded alert*

9. You can also create an alert based on a dashboard gauge. From the *Event Trigger* field drop-down menu, select **Gauge threshold exceeded**. From the *Gauges* field, select required gauge name. Each time the gauge reaches the threshold, an alert will be fired.

Note:

An alert is also fired in cases where the dashboard client is not running.

Editing a Policy

You can make changes or add attributes to a policy.

To edit a policy:

1. Select the policy you want to edit from the Policy list and click **Edit** on the toolbar. The *Edit* dialog is displayed:

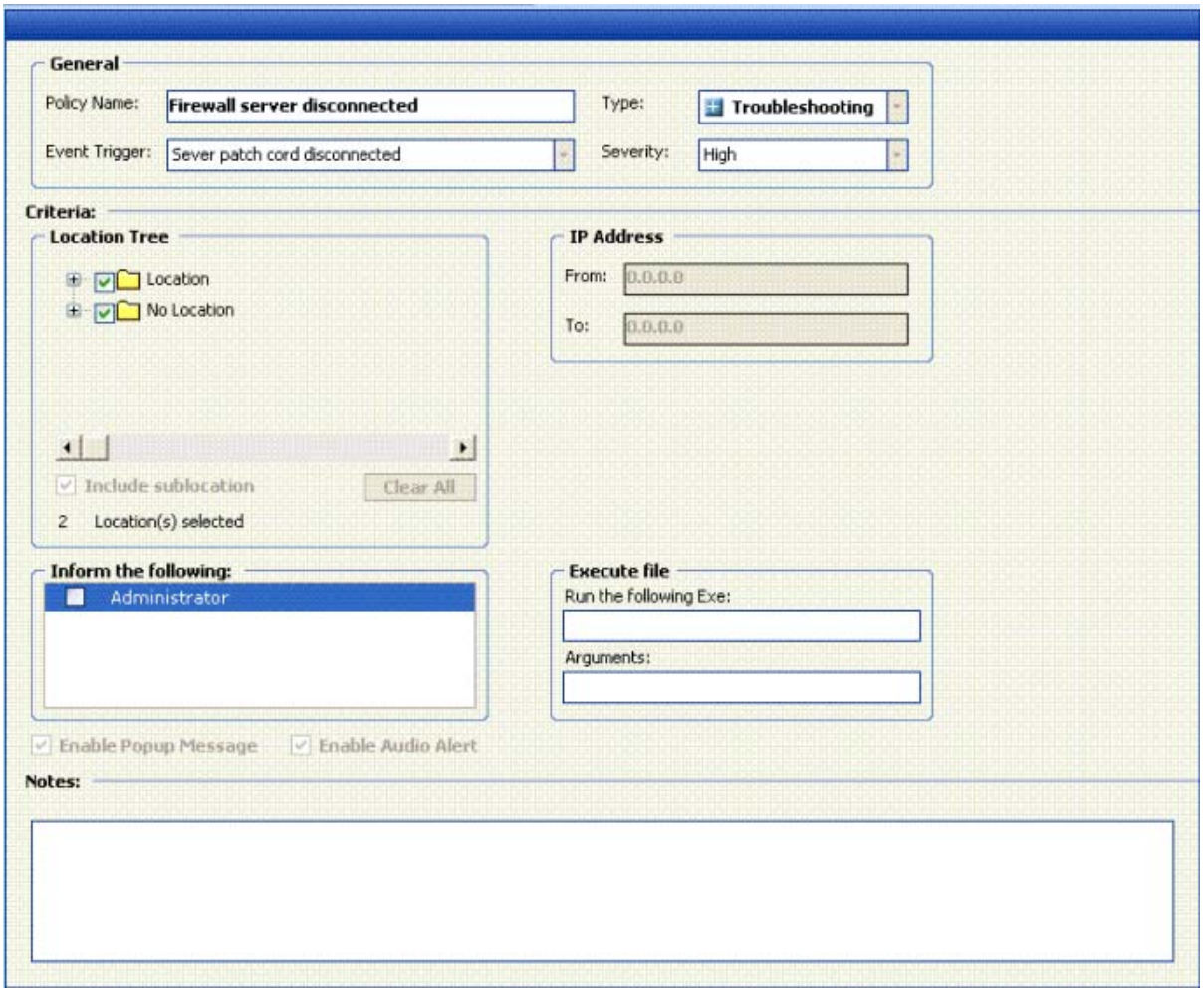


Figure 10 *Editing a Policy*

Execute file: You can specify which program to use when an alert is fired.

Arguments: This field displays the arguments (parameters) in the above screen.

Enable Popup Message: Click the check box if you want popup messages to appear

Enable Audio Alert: Click the check box if you want to hear an audio alert

2. Make the desired changes to the alert policy.
   Click **OK** to save the changes and exit the dialog.
   Click **Cancel** to exit without saving the changes.
   Click **Delete** to delete the policy from the list.

Alerts

The creation of an alert is based on a set of events and thresholds that you define via an alert policy (See *Policy* on *page 9* for more information). You determine the alert type, name and severity. For example, you can decide that a disconnection of a PC which resides in the basement will create a low severity provisioning alert, while the disconnection of a PC located in the datacenter will create a high severity provisioning alert. You can decide whether the alert will pop up a message and/or give an audio alert.

Viewing the Alerts Log

The PatchView alerts log is updated upon event generation.

To view the alerts log, click the *Alerts* module in the navigation pane. The Alerts event list is displayed:

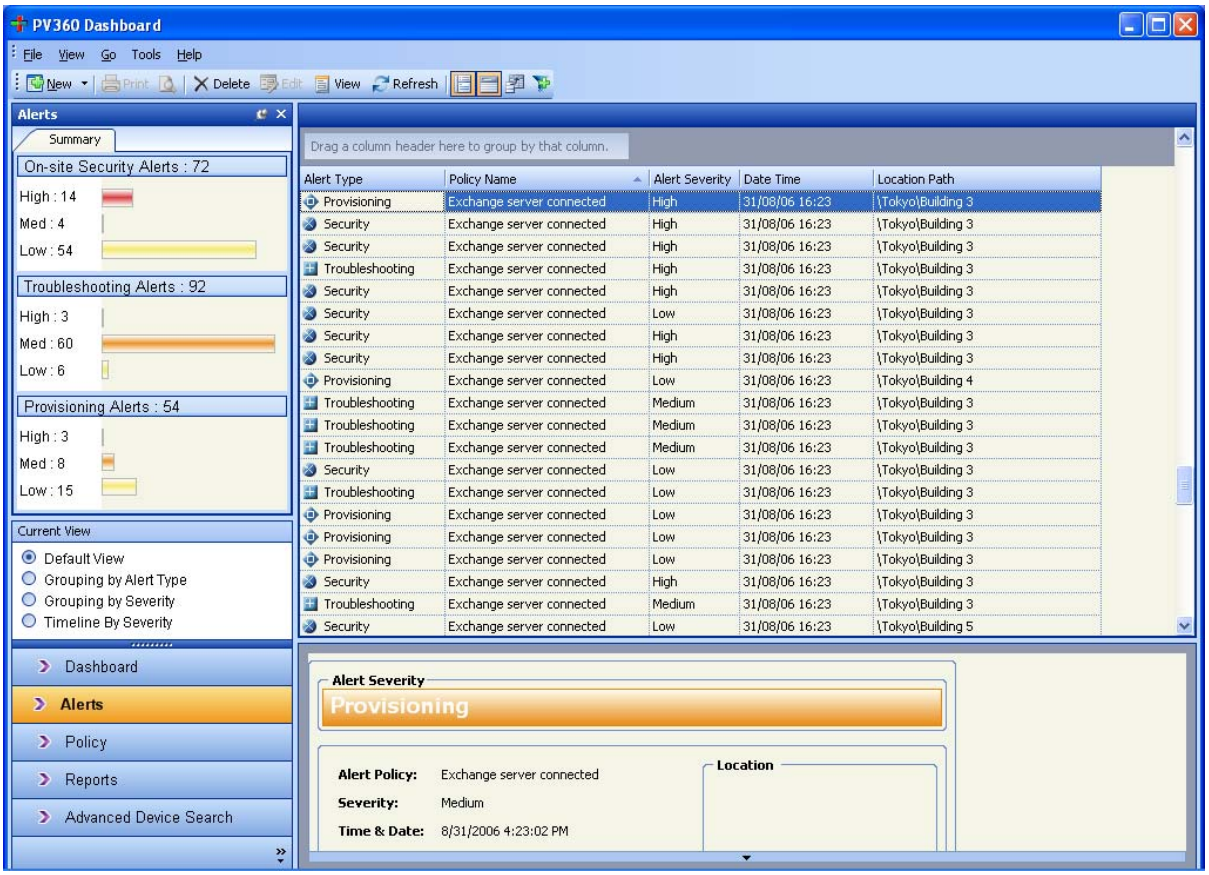

PV360 Dashboard
File View Go Tools Help
New Print Delete Edit View Refresh
Alerts
Summary
On-site Security Alerts : 72
High : 14
Med : 4
Low : 54
Troubleshooting Alerts : 92
High : 3
Med : 60
Low : 6
Provisioning Alerts : 54
High : 3
Med : 8
Low : 15
Current View
Default View
Grouping by Alert Type
Grouping by Severity
Timeline By Severity
Dashboard
Alerts
Policy
Reports
Advanced Device Search
Drag a column header here to group by that column.
Alert Type | Policy Name | Alert Severity | Date Time | Location Path
Provisioning | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Troubleshooting | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Provisioning | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 4
Troubleshooting | Exchange server connected | Medium | 31/08/06 16:23 | \Tokyo\Building 3
Troubleshooting | Exchange server connected | Medium | 31/08/06 16:23 | \Tokyo\Building 3
Troubleshooting | Exchange server connected | Medium | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 3
Troubleshooting | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 3
Provisioning | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 3
Provisioning | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 3
Provisioning | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | High | 31/08/06 16:23 | \Tokyo\Building 3
Troubleshooting | Exchange server connected | Medium | 31/08/06 16:23 | \Tokyo\Building 3
Security | Exchange server connected | Low | 31/08/06 16:23 | \Tokyo\Building 5
Alert Severity
Provisioning
Alert Policy: Exchange server connected
Severity: Medium
Time & Date: 8/31/2006 4:23:02 PM
Location

Figure 11 Alerts event list

The Alerts list displays real-time alert logs. Entries include:

- Alert Type – the alert type can be either security, troubleshooting, or provisioning
- Policy Name – the name of the policy event trigger
- Alert Severity – the alert severity can be defined as high, medium, or low
- Date Time – the date and time of the event trigger
- Location Path – the details of the event location by region/city/building/room

***Note**:*

The log is automatically cleared of alerts that are over 36 hours old in a first-in, first-out (FIFO) manner, but you can customize the time period settings.

Deleting an Alert

You can delete an alert message from the Alerts log. To delete an alert, click the *Delete* icon on the toolbar. The alert message is deleted from the log.

Customizing the Alerts Event List

The Alerts events view list has an email "look and feel". You can customize the view of the Alerts event list, just as you do when viewing emails via Microsoft Outlook or Outlook Express.

Sorting entries allows you to arrange items in ascending or descending order. You can sort or filter items in any view, based on one field or multiple fields.

Preview pane viewing

Click the *Preview pane* icon to view event items from the list without opening them. In the preview pane, you can view the alert type and policy, the severity, the alert time and date, and its location.

Group viewing

Click the *Group* icon to sort or filter alert items by group. Drag a column header to group by that column. Drag another column header to further filter a sub-group.

You can also select additional group views from the *Current View* dialog above the module navigation.

Field chooser viewing

Click the *Field chooser* icon to display the *Available fields* box. Click the fields you want to display in the events list.

Filter viewing

Click the *Filter* icon to view only those items that meet conditions you specify. Select an option that meets the criteria from the drop-down list.

Displaying Alert Details

You can view the details of an alert in a separate window. To view alert details, select the event row and click *View* from the toolbar. The *Alert detail* dialog is displayed:

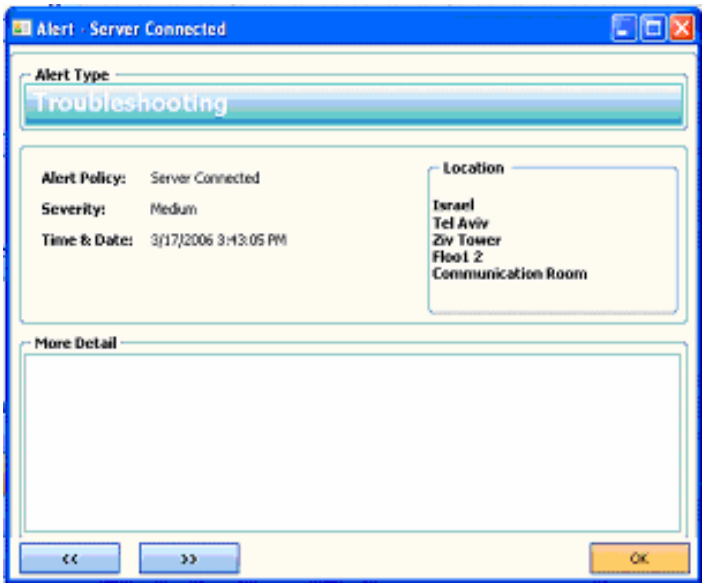


Figure 12 Alert details

The alert type, policy, severity, alert time and date, and its location are displayed.

Click **OK** to close the dialog.

Alert Pop up Message

A pop up message is received when a new alert is received. A new alert also invokes an audio alert. You define the pop up alert style, its duration of appearance on the screen, and its transparency.

***Note**:*

Pop up alerts are received when the dashboard is running, even if it is minimized.

To define an alert pop up message:

1. From the Tools menu, select *Tools* > *Options.* The *Options* dialog is displayed:

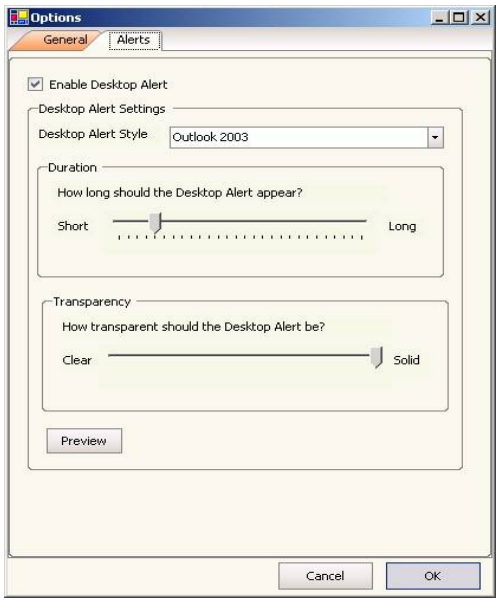


Figure 13 Define an Alert Pop Up

2. Check the *Enable Desktop Alert* checkbox to enable an alert pop up.
3. From the Desktop Alert Style, select an alert style from the drop-down list.
4. Set the duration for how long you want the Desktop Alert to appear by dragging the slider to the desired tick mark interval.
5. Set the transparency of the alert pop up message background color by dragging the slider to the desired transparency.
6. Click the *Preview* button to view an example of the pop up message.
7. Click **OK** to save the changes, or *Cancel* to exit without saving.

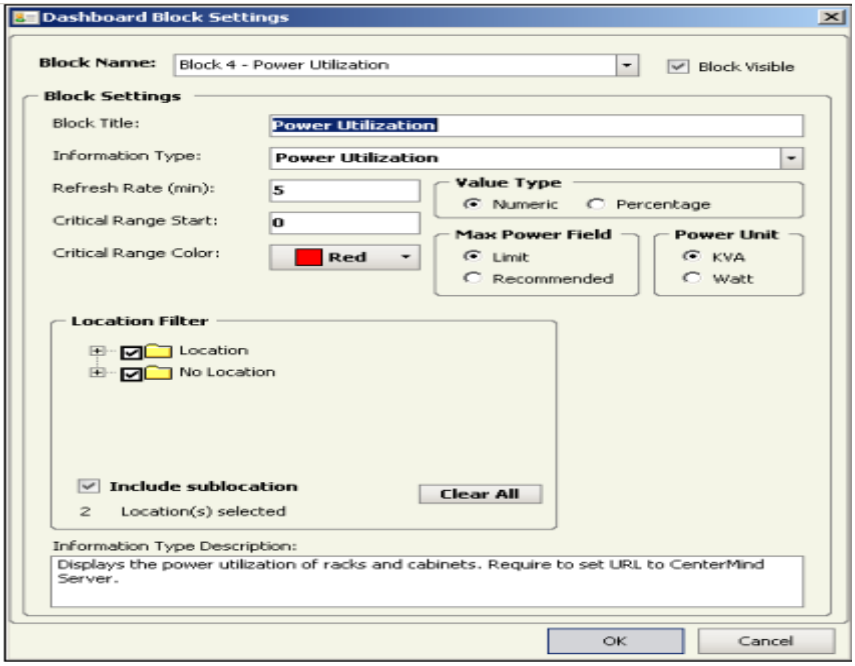
Power Utilization (for use with the CenterMind application)

The Power Utilization gauge is new in Dashboard 2.2 and is specifically for users who have the CenterMind application installed. Please note however, that the CenterMind application has not yet been released.

You will need to set the URL to the CenterMind server before you can activate Dashboard; this is because the information displayed on the Dashboard gauges is taken from the CenterMind database. To set the URL refer to the *Settings* section.

To change the Power Utilization settings, do the following:

1. Click *Edit* on the toolbar. The *Dashboard Block Settings* dialog is displayed:



2. Enter the following information:

Block Name:	From the drop-down list select the *Block* name.
Block Title:	Enter name.
Information Type:	Select **Power Utilization.** From the drop down menu.
Refresh Rate (min):	Enter the minutes that you want the system to perform a periodic refresh.
Value Type:	Check the radio box to view in Numeric or Percentage.
Critical Range Start:	The starting point for an early warning of emerging problems.
Critical Range Color:	Select a color from the drop-down list.
Max Power Field - The Max Power Field and Power Unit fields (see below) appear only when the *Power Utilization* field is selected	See *PV4E User Guide.*
Power Unit -	Click either the KVA or Watt radio button. The selected power unit is displayed on the gauge after the screen is refreshed.
Location Filter	See Location Filter section
Information Type Description:	See Information Type table

Error Message

The Power Utilization gauge will display the following notice for users that do not have the CenterMind application installed:

Reports

Reports display cumulative history of all defined alerts within the time period designated by the user.

To view reports, click the *Reports* module in the navigation pane. The *Reports* view is displayed:

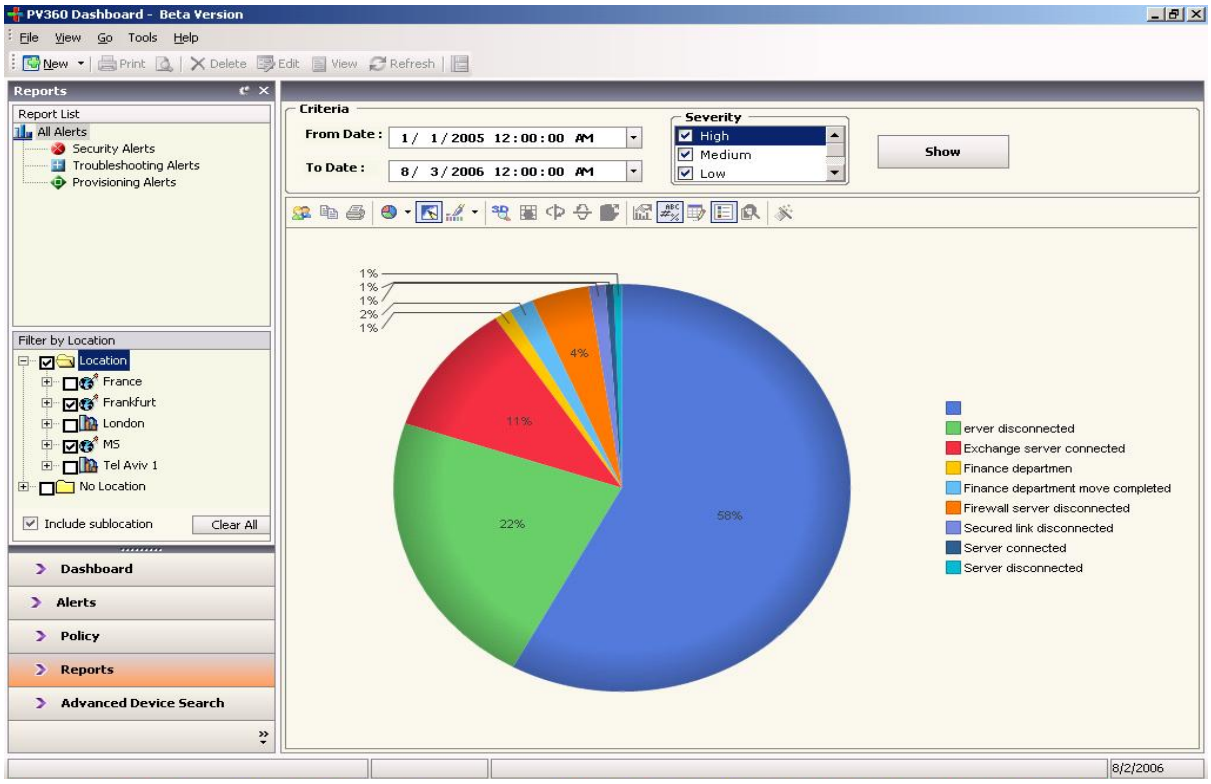


Figure 14 Reports module view

Viewing a Report

In the navigation pane, you can view a report list of all the alerts by type. The *Filter by Location* dialog displays the event history by selected locations, allowing you to drill-down to more precise alert locations.

In the work pane, the pie chart displays the breakdown (in percentages) of alert triggers for the selected time period.

To change the graphical view, click the *graphs* icon on the toolbar and choose a different graph style.

Filtering Reports

You can filter the report results by changing the report criteria:

- Select a different date range
- Select the alert severity

- Select an alert type from the *Report List* dialog
- Select locations from the *Filter by Location* dialog to pinpoint the location of an alert by region/city/building/room, allowing real-time location search for any device

Date Range

To change the time period, select a different date range. Click the *From Date:* and *To Date:* drop-down lists. A calendar month dialog is displayed for easy date selection:

Severity

Via the *Severity* dialog, select the alert severity of the events you want displayed in the report.

Alert type

Via the Report list in the navigation pane, you can view all the alerts or select an alert type to filter the data displayed in the graph:

Filter by Location

Via the *Filter by Location* dialog, you can pinpoint the location of an alert by region/city/building/room, allowing real-time location search for any device.

Graph Tool Tip

Move the mouse over a certain area of the pie chart. When the pointer is placed over the object, a screen tip displays more detail of the selected event.

Advanced Device Search

The *Advanced Device Search* module displays a device's physical location and information, such as: IP address, MAC address, etc. This feature presents information according the device type. For example, if the device is a switch, it will also display information regarding the switch modules.

To perform a search, click the *Advanced Device Search* module in the navigation pane. The *Network Query* dialog is displayed:

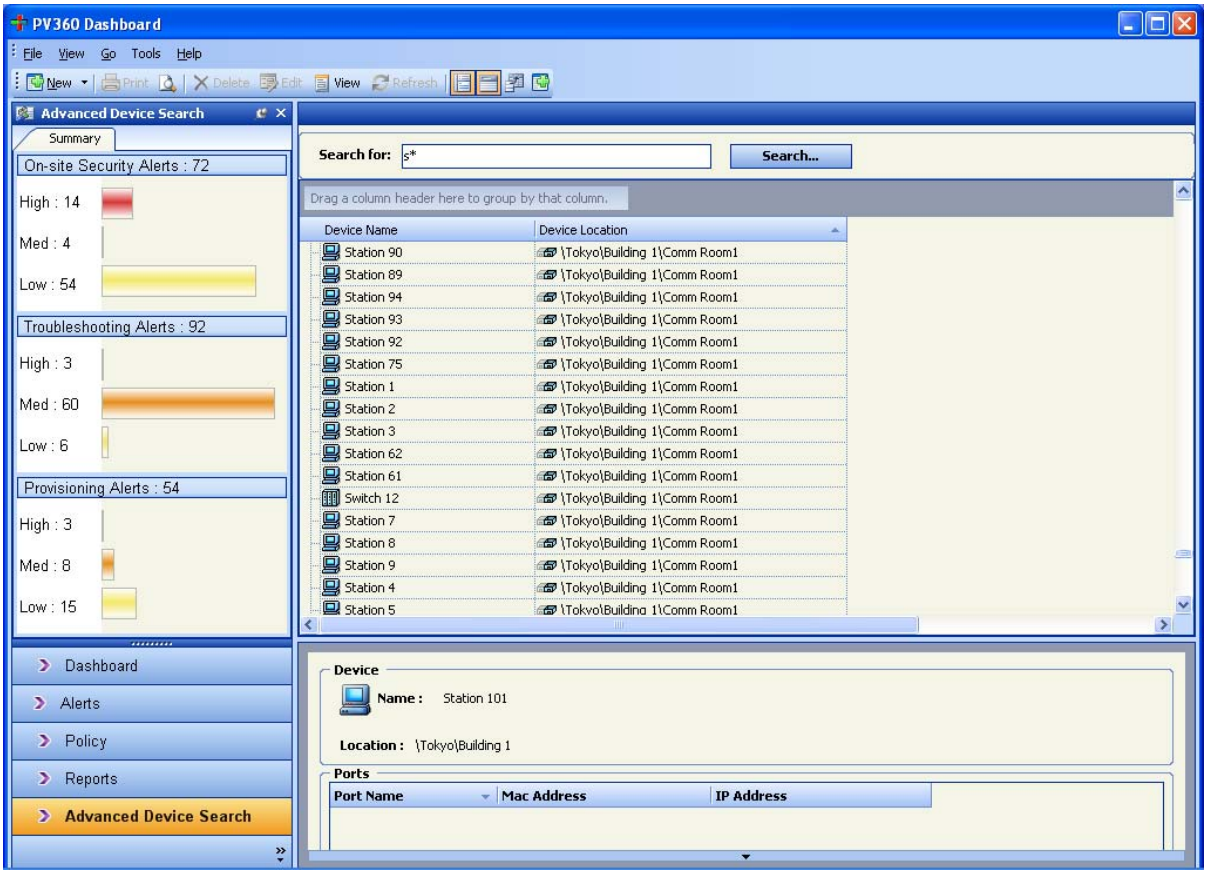


Figure 15 Device Search

Click the *Preview pane* icon to view more detail of the selected device, or double-click the device in the list to open a separate detail window.

To search for a specific device, type a search phrase (text or IP address), or a part of the name in the *Search for:* field and click *Search…*.

It is also possible wild cards search (*).

Click on a device to display the *Device* dialog. Click **View Link** to view the connectivity of the device. From the *View Link* dialog, click on a specific device and open the PV4E application.

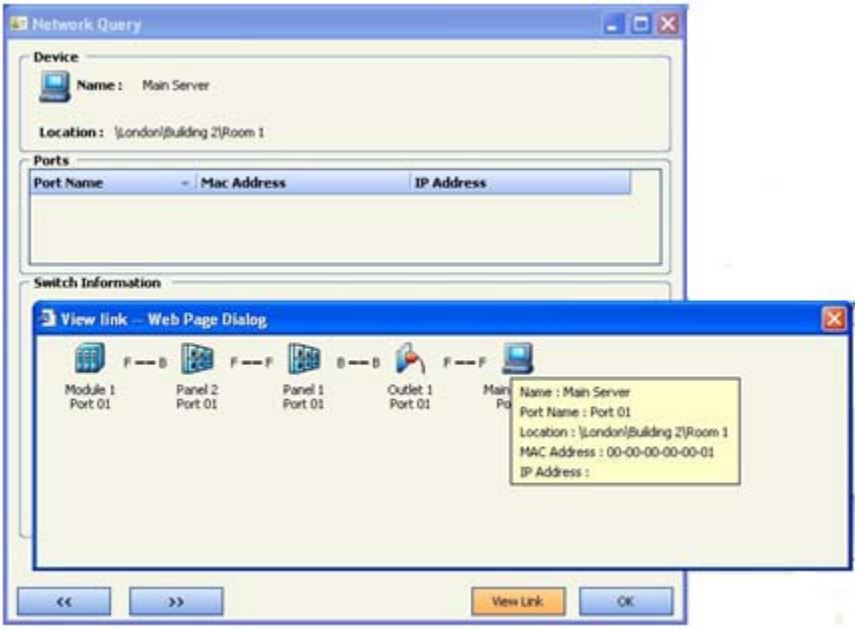


Figure 16 View Link window

Work Order Calendar

The *Work Order* module displays the tasks assigned to different technicians on a standard Outlook calendar. On the left, you can choose the technicians and the specific date. On the right, a column is added for each of the chosen technicians. Any relevant task is presented with the entire relevant task's information.

You can now choose to view the calendar daily, weekly, or monthly.

Note that tasks with different status levels appear in different colors.

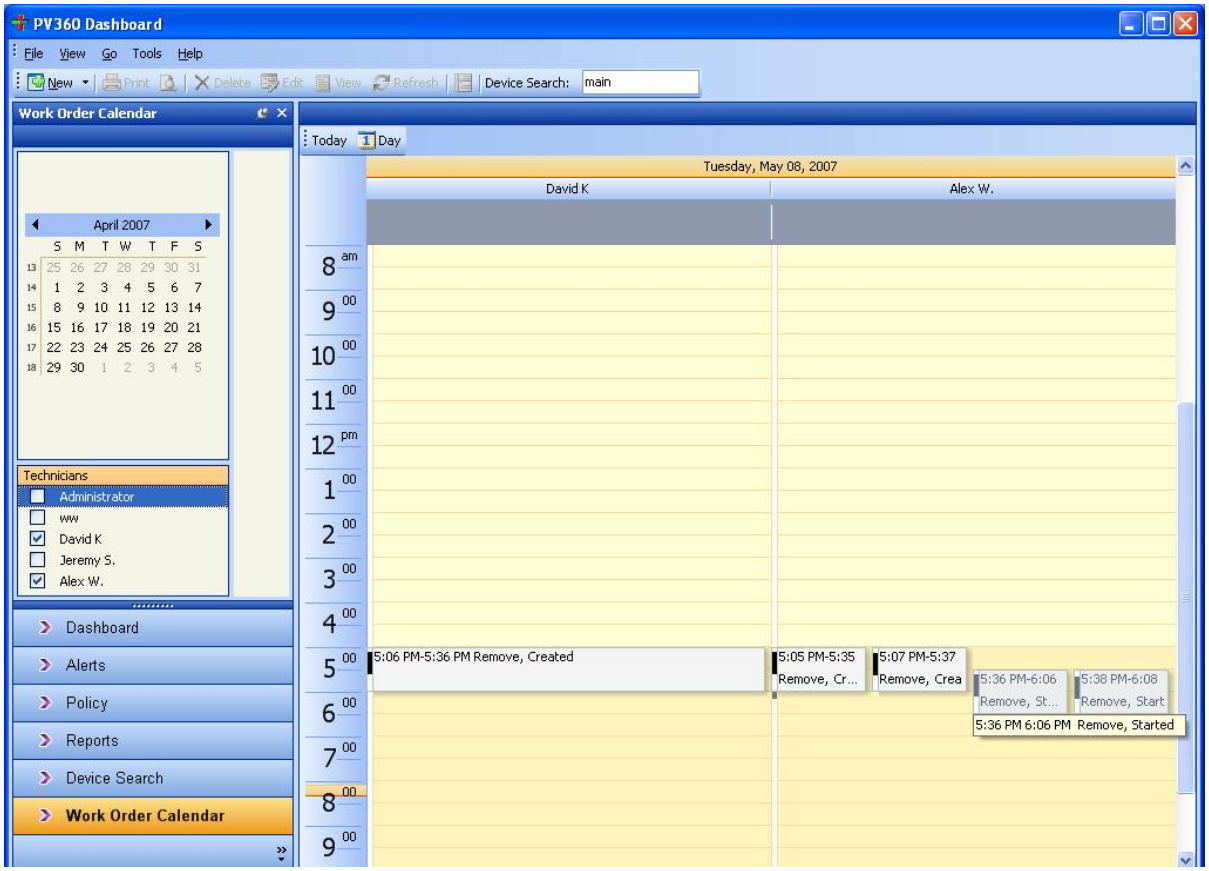


Figure 17 Work Calendar window

With version 2.2 you can also view Work Orders weekly, see the following:

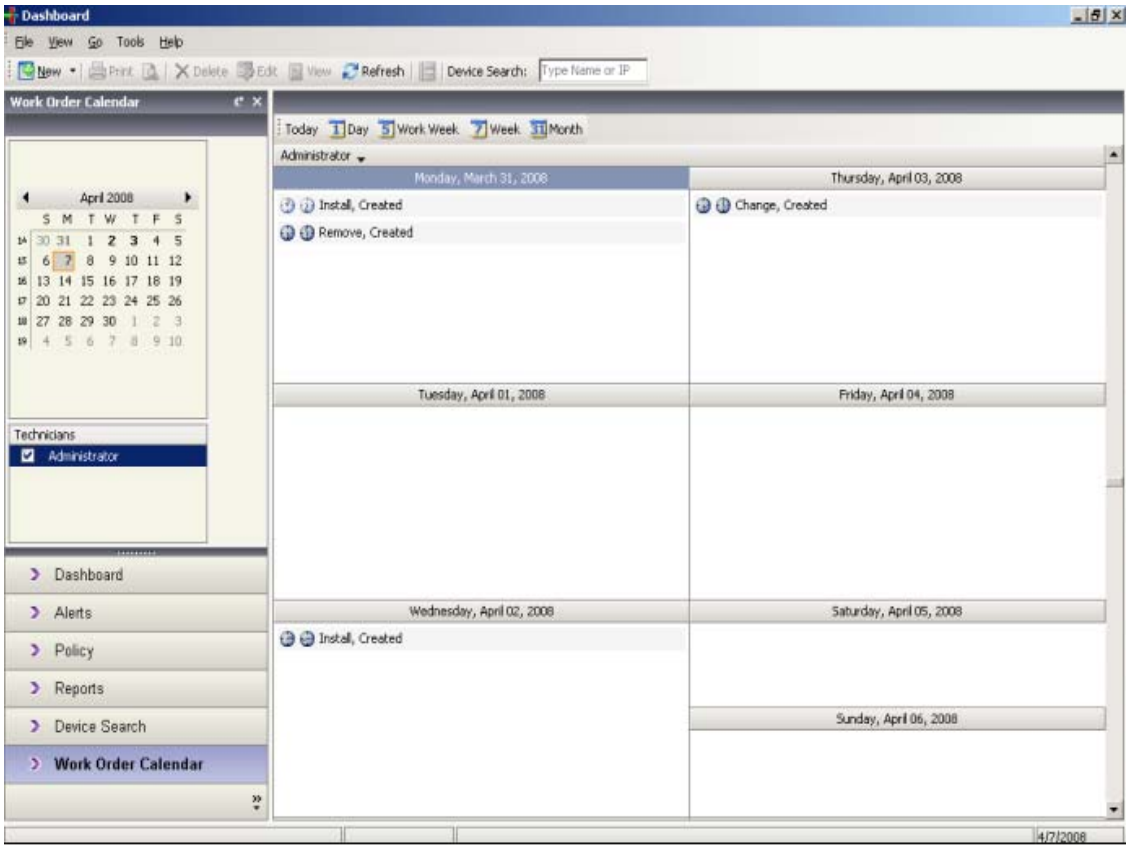


Figure 18 Work Calendar Window - weekly

Appendix 1 SDK functions

Login

This function opens a session which allows the SDK user to communicate with the Dashboard.

Format

```
string LogIn(string userName, string password)
```

Parameters

- **username** – PV4E user name
- **password** - User password

Return Value

```
<LoginResult>
   <Login Result="0" CodeId="0" Description="">
</LoginResult>
```

- Result -1: Failed
- Result 0: No Dashboard License
- Result > 0: Succeed, (Result = ConnectId)

LogOut

Logs out the user from the specific session.

Format

```
string LogOut(int connectId)
```

Parameters

- **connected –** the connection ID that was received in the login operation

Return Value

```
<ResultStruct>
   <FuncResult Result="0" />
</ResultStruct>
```

- Result 0: Failed
- Result 1: Succeed

SetGaugeData

Allows the user to set the data for a specific gauge. In total, the Dashboard supports 5 gauges.

Format

```
string SetGaugeData(string xmlGaugeData, int connectId)
```

Parameters

- xmlGaugeData

<GaugeData GaugeNumber=”1” MaxValue=”50” MinValue=”20” CurrentValue=”30” />

- **connected –** the connection ID that was received in the login operation

Return Value

```
<ResultStruct>
        <FuncResult Result="0" />
        <ErrorInfo>
                <CustomError CodeId="0" Description="" />
        </ErrorInfo>
</ResultStruct>
```

- Result 0: Failed
- Result 1: Succeed

Note

There will be a possibility to update only one value (*maxValue* or *currentValue*) by eliminating the other value from the XML. The function will ignore the missing values in the XML.

Example:

<GaugeData GaugeNumber=”1” MaxValue=”50” MinValue=”20” CurrentValue=”30” />